chestnut feathers occurring on the top of the crown where normally no chestnut is found in *P. domesticus*, except, of course, in the race *P. d. italiae*. In this connection the position of *P. d. italiae* is of importance for if, as I contend, *P. domesticus* has evolved from *P. hispaniolensis* then this race in its evolution has retained the chestnut crown of the latter species. Some support to this theory is lent by the fact that in *P. d. italiae* the white markings on the head which are so characteristic of *P. hispaniolensis* are almost as strongly marked and constant in *P. d. italiae*. These findings point to *P. d. italiae* being very close to *P. hispaniolensis*.

Occasional adult males of *P. d. domesticus* from Europe can be found in which the centres of the crown feathers are dark sepia giving the appearances found in some less strongly differentiated examples of *P. d. tingitanus* from North Africa. Nichols in his paper (*loc. cit.*) has the following comments to make upon the inheritance of homologous characters: "They suggest potential more or less complete and unlike patterns in House Sparrow heredity which crop out in young birds, less standardised than adults. Strangely enough I find a white streak from eye to bill obviously homologous with that in type-B birds in normal males of *P. jagoensis* from Cape Verde Islands and its race *ruficinctus* of the South and East African mainland."

Having now considered the broad morphological characters of the two species groups there yet remains to be discussed the interesting position of the sex anomalies.

(to be concluded)

Variant winter plumage of the female Tufted Duck

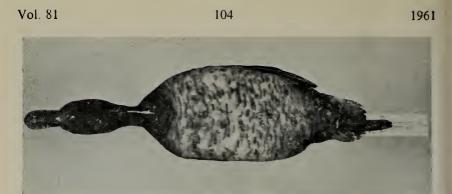
by JAMES M. AND JEFFERY G. HARRISON

Received 31st December, 1960

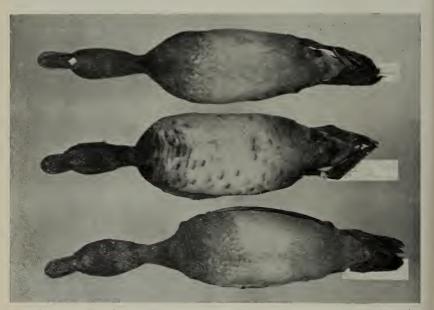
With regard to the discussions^{1 2} following our original communication³ on variant plumage of the female Tufted Duck, *Aythya fuligula* Boie, we are now in a position to take this matter a stage further. In the spring of 1960 a brood of Tufted Duck was hatched in captivity. One of the young when moulting into its first winter plumage showed signs of the dark brown flecking of the white underparts, which E. H. Gillham considers to be a normal type of summer plumage, as described in *The Handbook*¹. The bird was kept in captivity and it unfortunately died of an acute aspergillosis, without loss of weight or general condition on 5th December, 1960.

The skin was prepared and careful note was made at the time of the state of moult. This was in effect complete and there was no evidence of any active moult anywhere. It is now in the collection of J.M.H.

When it died in mid-winter, this specimen possessed underparts more heavily flecked with dark brown than any of the three specimens originally illustrated by us and it proves conclusively that the plumage we described is neither that of the adult nor the immature female, nor is it a summer plumage. It is, in fact, an unusual variant first winter plumage. It yet remains to be seen, from captivity birds of known age, what the subsequent adult seasonal plumages of this mutation may be or whether it is a phase restricted to homologous recessive individuals, during the first winter plumage only.



Variant first winter female Tufted Duck; 5. xii. 1960, showing heavy brown flecking of the underparts.



Three young Tufted Duck of the same brood. The upper and lower birds show the normal subdued barring of the immatrice. The centre bird shows abnormal dark flecking.

The specimen now described is illustrated in the accompanying plate and we are also publishing a plate showing three first winter Tufted Duck of the same brood, which should have appeared in our second paper on this subject². Two show the accepted type of immature plumage, presenting the barred belly and vent, while the centre bird, which was also the centre bird of our original plate³, shows in addition to the normal *subdued* barring of the belly and vent, the coarse and more generally distributed dark flecking to which we originally referred.

We are indebted to Dr. Edmund Gleadow for the new specimen. References:

Gillham, E. H., "Remarks on the female plumages of the Tufted Duck and a com-

² Harrison, James M. and Jeffery G. "Further remarks on Female Plumages of the Tuffed Duck". Bull. B.O.C., Vol. 80, pp. 140–1. 1960.
² Harrison, James M. and Jeffery G. "Further remarks on Female Plumages of the Tuffed Duck". Bull. B.O.C., Vol. 80, pp. 141–2. 1960.
³ Harrison, James M. and Jeffery G. "On Varieties of the Tuffed Duck, with an account of an unrecorded type of variation". Bull. B.O.C., Vol. 80, pp. 25–28. 1960.
⁴ With edge H. E. and Hard Barde and Defiber Dirdel? Vol. 80, pp. 25–28. 1960.

⁴ Witherby, H. F. et al. ⁴ The Handbook of British Birds''. Vol. 3., London, 1939.

More aquatic predators of birds

by CHARLES R. S. PITMAN

Received 2nd January, 1961

PART III

(V) CHELONIANS

AFRICA: SOUTH AFRICA. Miss Courtenay-Latimer writes "Our Fresh Water Tortoises, Pelomedusa subrufa Gray are extremely common on all our water courses. They consume young waterfowl and their eggs". Specific cases quoted are: — A water tortoise (20.10.41) ate a two days' old duckling of the Black Duck, Anas sparsa, near Port Elizabeth. Also, on the Thomas river, Eastern Cape, at least on four occasions whilst studying the breeding habits of the Yellow-billed Duck, Anas undulata Dubois, water tortoises either ate the eggs or devoured the ducklings when two to three days' old.

According to African Wild Life (20), the carnivorous water tortoise, Pelomedusa subrufa is disliked because of its habit of seizing small ducklings, etc. by the leg as they swim on dam or river, and then drag them to the bottom to drown before devouring them. Many a farmer has lost much of his young feathered stock to this underwater thief.

In (¹³: p. 65) it is recorded that other predators of waterfowl which from time to time require control include water tortoises. A. C. Harrison, Secretary of the Cape Piscatorial Society, with reference to aquatic predators of birds, writes "the water tortoise is a minor predator".

NORTHERN SNAPPING TURTLE, Chelhydras serpentina (Linn.)

NORTH AMERICA: CANADA: ONTARIO. In a communication from the Chief, Fish and Wild Life Branch, Department of Lands and Forests, Ontario, a biologist Mr. H. G. Lumsden recalls having found a half-grown Mallard Duck in 1949 at Lake St. Clair with one leg severed above the tarsal joint. The bird although drowned was still warm. He believed that it was the work of a Snapping Turtle. It is well-known that this chelonian, which attains a size of 15 inches across the carapace and a weight of 30 lbs. (occasionally as much as 60 or 70 lbs.), will prey on waterfowl as opportunity offers.

NORTH-EASTERN UNITED STATES. (²¹: p. 63) In the stomachs of 470 Snapping Turtles examined, the only birds found were Wood Duck, Aix sponsa (L.) .5 (volume) and Red-winged Black bird, Agelaeus phoeniceus (L.) .6. The percentage frequency of their finding was respectively .4 and .2. This would suggest that the Snapping Turtle is not a serious predator of waterfowl, though the general belief is to the contrary.